

Appl. No. : **Unknown (corresponding to PCT application)** Number
PCT/IB99/01747

Filed : **Herewith**

Please replace the paragraph beginning at page 11, line 16, with the following rewritten paragraph:

In the process, the lid 28 of the bottle 20 is removed an aliquot sample of ore is added to a bottle 20 containing flux 26, the lid 28 is applied back onto the bottle 20 and the sample and flux is combined by merely shaking the bottle.

Please replace the paragraph beginning at page 12, line 10, with the following rewritten paragraph:

Referring to Figure 3, bottles 2 which contain ore sample combined with flux are loaded onto a sample loader 34 which comprises a conveyor belt 36, an optical sensor 38, a bar code reader 40, and a mechanical gripper arm 42. In use, the optical sensor 38 senses the presence of a bottle 20, the bar code reader 40 (positioned above the bottle, and shown in dotted outline) scans the bar code 28 on the lid 22 of the bottle 20 and the gripper arm 42 grips the bottle at the ridge 30 and transfers it into an induction furnace 44 which is powered by a generator 46. The conveyor 36 conveys the next bottle 20 in line with the sensor 38 and this next bottle is then ready to be transferred into the induction furnace 44. Once placed in the induction furnace 44, the identity of the bottle 20 is compared to the information stored on the central database and the bottle 20 is heated at a temperature profile that corresponds to the ore sample and flux contained within the bottle 20.

Please replace the paragraph beginning at page 13, line 26, with the following rewritten paragraph:

In a typical example where the temperature profile is kept constant, the melting pot 26 is heated to about 900° and the flux and sample is inserted into the melting pot 26. The coil 48 is supplied with 15-30 kW of electrical energy from the generator 46 for a predetermined first period of time (usually 20 to 30 seconds) to heat the pot to about 1250°C and then dropped to 10 to 12kW for a predetermined second period of time (usually 20 to 30 seconds), maintaining the temperature of the melting pot about 1250°C. Thus, fusion of the ore and flux takes from 45 to 90 seconds, generally approximately 60 seconds.

Please replace the paragraph beginning at page 15, line 21, with the following rewritten paragraph:

The advantage of the flux 26 over known flux compositions is that the sodium hydroxide has a melting point of 318°C, which is much lower than the melting point of CaCO₃, used in